

43.(New) The polyurethane film of Claim 42 wherein said film exhibits a cohesive property with either itself or a different film of the same type as measured by a sliding block pull tension of below about 150 grams as measured by a sliding block friction procedure.

44.(New) The polyurethane film of Claim 43 wherein said film exhibits a cohesive property with either itself or a different film of the same type as measured by a sliding block pull tension of below about 100 grams as measured by a sliding block friction procedure.

45.(New) The polyurethane film of Claim 44 wherein said film exhibits a cohesive property with either itself or a different film of the same type as measured by a sliding block pull tension of below about 90 grams as measured by a sliding block friction procedure.

46.(New) The polyurethane film of Claim 45 wherein said film exhibits a cohesive property with either itself or a different film of the same type as measured by a sliding block pull tension of below about 75 grams as measured by a sliding block friction procedure.

REMARKS

Claims 34 and 36-46 are pending within the present application. Claim 34 has been amended. Claims 21-33 have been cancelled. Claims 37-46 have been added.

Support for the amendment to Claim 34 concerning the protruding antimicrobial compounds from the exterior surface of the claimed film are found at page 7, lines 8-19 of the originally filed specification, as well as including the limitations of previous Claim 35 therein. New claims 37-46 are basically the same as previous claims 24-33. No new matter has been submitted. Thus, it is respectfully requested that entry and due consideration thereof by the Office should be granted for such amendments.

The amendments above render moot the anticipatory rejection in view of Katsura et al. as well as the obviousness-based rejections based upon Krall et al. in view of JP 09002537 and based upon JP 11-028797 (apparently meant to be in view of JP 09002537).

The Office has also rejected claims 34-36 under 35 U.S.C. § 103(a) as being unpatentable over Krall et al. in view of JP 09002537, further in view of Folden, as well as JP 11-028797 in view of JP 09002537, further in view of Folden. Both of these rejections are based upon the teaching of Folden that silver antimicrobial provide smooth, durable, and lower-friction surface characteristics when incorporated within certain plastics. There is no indication within any of the primary or secondary references of the importance of the incorporation of the classes of silver-based antimicrobials now claimed (elemental silver is excluded from the present claims). Krall et al. is limited to teaching the initial silver deposition on a film, after which the film is ground up and extruded as a sheet for plastic body production. No silver-based antimicrobials are taught other than silver itself. JP 11-028797 fails to teach any specific antimicrobial agents. JP 09002537 fails to teach or suggest the incorporation of silver zirconium phosphate both within and at the surface of a polyurethane film, only as an additive within thick plastic storage

containers. There is no indication that such a compound is equivalent to silver itself within film applications within this reference. The Office thus relies upon the teachings of Folden to show that selection of silver-based antimicrobials are obvious to the ordinarily skilled artisan to incorporate within Krall et al.'s films or the films of JP 11-028797 in order to produce the same anti-tack films of the present claims. However, the reliance is misplaced in this situation for a number of reasons, not the least of which is the fact that Folden fails to discuss films, only plastic articles. As JP 09002537 is not directed to films and Folden likewise fails to teach such applications, there is no motivation supplied by these references to add the silver-based antimicrobials now claimed within either film application of Krall et al. or JP 11-028797. There is thus no proper suggestion that such silver zirconium phosphates, zeolites, glasses, etc., as now claimed provide the same anti-tack benefits as well as simultaneous antimicrobial properties within polyurethane films as presently claimed.

Furthermore, Folden, at best, as noted above, teaches that silver, not the compounds now claimed, provides certain advantages at the surface of plastic articles, most notably smoothness, durability, and lower-friction. However, these are contrary to the results realized by Applicants; as now claimed the target films must include the inorganic silver-based antimicrobials noted above within the interior, within the exterior surface, and extending outward from the exterior surface. This produces, clearly, a roughened, not smooth, friction-exhibiting, not lower-friction, surface for the target polyurethane film. The Office has basically confused low-friction characteristics with anti-tack properties; these two things are not mutually inclusive.

Polyurethane films generally exhibit surface tackiness unless additives are supplied to prevent

contact between the tacky polyurethane surface components with other such components (or other surfaces susceptible to polyurethane adhesion to the end) unless additives are supplied to prevent such contact with the tacky polyurethane surface (talc, for instance). The claimed invention requires the solid particles of the limited classes of antimicrobials to extend outward to reduce the chance of surface polyurethane contact to provide the anti-tack benefits desired. This is clearly not taught within Folden as a benefit of silver-based antimicrobials (since it is not directed to films anyway). Thus, there is no reason for the ordinarily skilled artisan to review all of these references alone or in combination to determine that the addition of the silver-based antimicrobial compounds within the present claims would be obvious to provide the same results and limitations of the instantly claimed invention. Krall et al. is perfectly content with the silver layer (probably because it can provide an easily deposited layer to the film surface of their preplastic formulations). JP 11-028797 mentions nothing regarding the importance of selecting any antimicrobial for their resin molded parts. JP 09002537 only presents to the ordinarily skilled artisan that silver zirconium phosphate can be added for color improvements to thick plastic parts, not to films. Lastly, Folden mentions nothing regarding the ability of silver zirconium phosphates, zeolites, and/or glasses for any incorporation within plastics. As such, and in view, particularly, of the claims as now written, there is simply no motivation provided by the cited references to produce the same resultant polyurethane anti-tack, antimicrobial films as now claimed. Retention of such rejections would thus be a clear exercise of improper hindsight reconstruction of Applicants' own teachings. Reconsideration and withdrawal of such bases of rejection are therefore earnestly solicited.

CONCLUSION

In view of all of the previous remarks, it is respectfully submitted that the submitted amendments be duly entered and considered, and that the pending claims are now in condition for allowance. Thus, it is respectfully requested that this application be passed on to issue.

April 16, 2003

Respectfully submitted,



William S. Parks

Attorney for Applicants

Registration Number 37,528

Telephone: (864) 503-1537

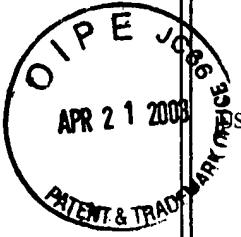
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Box Non-Fee Amendment, Commissioner of Patents, Washington, DC 20231, on April 16, 2003, along with a postcard receipt.



William S. Parks

Attorney for Applicants

MARKED-UP VERSION OF AMENDMENTS TO 09/851,042IN THE CLAIMS:

34.(Amended) An anti-tack polyurethane film exhibiting a thickness of from 10 to about 500 mils and having both an interior portion and exterior surface therein, said film comprising a silver-based inorganic antimicrobial compound selected from the group consisting of silver zirconium phosphate compounds, silver-based zeolites, silver-based glasses, and any mixtures thereof, in discrete areas of said film wherein at least some of said antimicrobial compound is present at and extending outward from said exterior surface of said film and at least some of said antimicrobial is present within said interior of said film; wherein said film exhibits a tackiness less than that of the same type of polyurethane film without said silver-based inorganic antimicrobial compound present at and extending outward from the surface thereof; and wherein said polyurethane film does not require the presence of any other anti-tack surface coatings or additives in order to exhibit such anti-tack properties.